

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### REGION I JOHN F. KENNEDY FEDERAL BUILDING BOSTON, MASSACHUSETTS 02203-0001

Mr. Stuart Hurd Town Manager Town of Bennington 205 South Street Bennington, Vermont 05201

Dear Mr. Hurd:

On September 17, I visited the Jard site on Bowen Road in Bennington, in order to assess whether PCB contamination still existed on site, in the surface soils, and in the fire-damaged building. As we discussed on October 29, the date of my second visit to Jard, results of this September sampling round indicated the presence of PCBs at elevated levels on surfaces (floors and walls) in the rear area of the building. Samples taken of surface soils also indicated PCB contamination, with the highest soil sample concentration measuring 120 ppm. I enclose results of the first round of sampling, along with a rough sketch indicating where the samples were taken, marked with the PCB concentrations.

As a result of these existing site conditions, I recommended to you that the building be secured, as I understand that the building has been condemned since the fire, and since the presence of PCBs in the wipe samples taken in September indicates that materials in the building have been contaminated. Please advise me if these measures have been taken. You may contact me at (617) 573-9670.

Thank you very much for your assistance.

Sincerely.

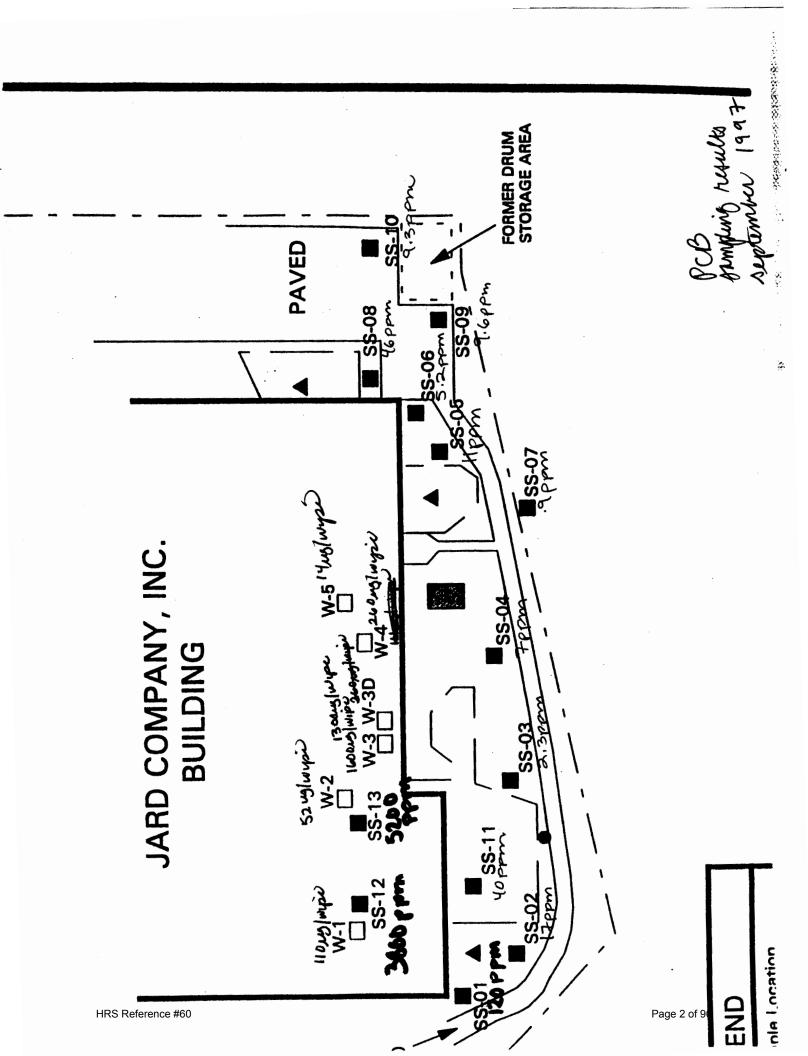
Mary Ellen Stanton

On-Scene Coordinator

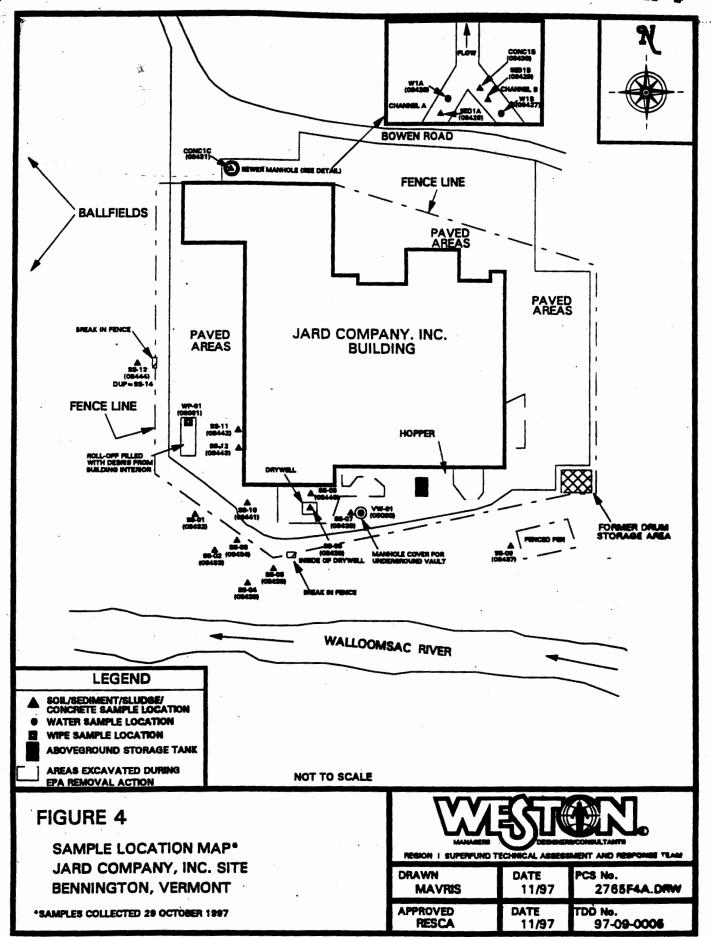
cc: Dave McIntyre, Chief, Site Evaluation and Response Section I Stan Corneille, VT DEC, Waste Management Division Jard Site File



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Printed with Soy/Canola ink on paper the
contains at least 75% recycled ther



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ENVIRONMENTAL PROTECTION AGENCY

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Burlington, Mit 01803
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LABORA OS EPA NERL

FAX NO. 16172723619

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#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Starton

# REGION 1 ENVIRONMENTAL SERVICES DIVISION 60 WESTVIEW STREET LEXINGTON, MASSACHUSETTS 02173-3185

DATE:

November 28, 1997

SUBJ:

Analysis of Polychlorinated Biphenyls (PCBs) in Water Samples

- JARD, INC.

FROM:

Peter Philbrook, Chemistry Section

THRU:

Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO:

Mary Ellen Stanton

PROJECT NUMBER:

98046

#### ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the Sop for Sample Login (EIA-ADMLOGN1.SOP, 7/97).

Sample preparation was done by the EPA Multi-Media Consensus Organics Protocol - Revised 8/87. The analysis was carried out using high resolution capillary column chromatography. The 30-m dual capillary system consists of J&W DB-1701 and J&W DB-5, both with a 0.25mm ID and a 0.25 micron film thickness.

The analytical support for this report was performed by AARP contractors.

Date Samples Received by the Laboratory: 10/30/97

Date Analysis Started: 11/10/97

. cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\98046WA.PCB

#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

#### QUALITY CONTROL:

- One method blank was included in the analysis.
- 2. Each sample was spiked with the surrogate compounds, decachlorobiphenyl and tetrachloroxylene, at a concentration of 2.5 ug/L. The results for the surrogate recoveries are reported out with each sample.
- 3. One sample, 08060, was spiked with Aroclor-1260 at a concentration of 3.0 ug/L as a matrix spike. The recovery is listed below.

PCB		Recovery (%)
		(*)
Aroclor	1260	82

SAMPLES ANALYZED: 08060, 08060MS, 08426, 08427, 08060, BLANK

#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Holding times meet (Y/N): No
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments: None

JARD, INC.

#### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE NO.: DATE OF COL			Matrix: Sample p	u•	Water
DATE OF EXT			Final Vo		5 mL
DATE OF ANA		11/18/97	Dilution		None
AMOUNT EXTR		0.1 L	Report F		1
SAMPLE RESU					
CAS	STORET	Compound	Conc.	RL	Qualifier
NO.	NO.		(ug/L)	(ug/L)	or Comment
12674-11-2	34671 ·	Aroclor-1016	ND	5.0	
11104-28-2	39488	Aroclor-1221	ND	5.0	
11141-16-5	39492	Aroclor-1232	ND	5.0	
53469-21-9	39496	Aroclor-1242	ND	5.0	
12672-29-6	39500	Aroclor-1248	ND	5.0	
11097-69-1	39504	Aroclor-1254	ND	5.0	
11096-82-5	39508	Aroclor-1260	ND	5.0	
11100-14-4	81650	Aroclor-1262	ND	5.0	•
37324-23-5	81650	Aroclor-1268	ND	5.0	
Sample Recor	-		Observed Recoveri		
		orobiphenyl	88		
	2,4,5,6 	-Tetrachloro-m-xylene	80		

#### Notes:

RL = Reporting limit

(6E+00 = 6, 1E+01 = 10, 4E-01 = 0.4)

ND = None detected

~ = Approximate

< = Less than

> = Greater than

NA = Not applicable due to high sample dilutions or sample interferences

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.

P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

D = Detected but too low to quantitate.

C = The identification has been confirmed by GC/MS.

JARD, INC.

#### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: DATE OF COIDATE OF EXTENDATE OF ANA AMOUNT EXTENSAMPLE RESU	LLECTION: TRACTION: LLYSIS: RACTED:	10/29/97	Matrix: Sample p Final Vo Dilution Report D	olume:	W	ater 5 mL 2x 2
CAS NO.	STORET NO.	Compound	Conc. (ug/L)	RL (ug/L)		lifier Comment
12674-11-2	34671	Aroclor-1016	ND	10		
11104-28-2	39488	Aroclor-1221	ND	10		
11141-16-5	39492	Aroclor-1232	ND	10		
53469-21-9	39496	Aroclor-1242	99	10		
12672-29-6	39500	Aroclor-1248	ND	10		
11097-69-1	39504	Aroclor-1254	ND	10		•
11096-82-5	39508	Aroclor-1260	ND	10		
11100-14-4	81650	Aroclor-1262	ND	10		
37324-23-5	81650	Aroclor-1268	ND	10		
Sample Reco			Observed Recover:			
		orobiphenyl -Tetrachloro-m-xylene	49 78			

Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene

JARD, INC.

70 55



## US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: DATE OF COL			Matrix: Sample pH:		
DATE OF EXT	RACTION:	11/10/97	Final Volu	me:	5 mL
DATE OF ANA		11/18/97	Dilution:		None
AMOUNT EXTR	ACTED:	0.1 L	Report Fac	tor:	. 1
SAMPLE RESU	LTS:				
CAS	STORET	Compound	Conc.	RL	Qualifier
NO.	NO.		(ug/L) (1	ug/L)	or Comment
12674-11-2	34671	Aroclor-1016	ND	5.0	
11104-28-2	39488	Aroclor-1221	ND	5.0	
11141-16-5	39492	Aroclor-1232	ND	5.0	
53469-21-9	39496	Aroclor-1242	ND	5.0	
12672-29-6	39500	Aroclor-1248	ND	5.0	
11097-69-1	39504	Aroclor-1254	ND	5.0	•
11096-82-5	3 <b>9508</b>	Aroclor-1260	ND	5.0	
11100-14-4	81650	Aroclor-1262	ND	5.0	
37324-23-5	81650	Aroclor-1268	ND	5.0	
Sample Reco			Observed	40.	
Surrogate C	compound:		Recoveries	(*)	

6

JARD, INC.



# US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: BLANK		Matrix:	Water
DATE OF COLLECTION:	Not Applicable	Sample pH:	
DATE OF EXTRACTION:	11/10/97	Final Volume:	5 mL
DATE OF ANALVETS.	11/17/07	Dilution	Mono

AMOUNT EXTRACTED: 0.1 L

Dilution: None Report Factor: 1

#### SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
12674-11-2 11104-28-2	34671 39488	Aroclor-1016 Aroclor-1221	ND ND	5.0	
11141-16-5	39492 39496	Aroclor-1232 Aroclor-1242	ND ND	5.0 5.0	
12672-29-6	39500 39504	Aroclor-1248 Aroclor-1254	ND	5.0	
11097-69-1 11096-82-5	39508	Aroclor-1260	ND ND	5.0 5.0	·
11100-14-4 37324-23-5	81650 81650	Aroclor-1262 Aroclor-1268	ND ND	5.0 5.0	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)	
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	90 79	_

7



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Stanton

# REGION 1 ENVIRONMENTAL SERVICES DIVISION 60 WESTVIEW STREET LEXINGTON, MASSACHUSETTS 02173-3185

DATE: November 28, 1997

SUBJ: Analysis of PCBs in Soils - JARD, INC.

FROM: Peter Philbrook, Investigations and Analysis, Chemistry Section

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO: Mary Ellen Stanton

PROJECT NUMBER: 98046

#### ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-In (EIA-ADMLOGN1.SOP, 7/97).

EPA Region 1 Procedure: Polychlorinated Biphenyls in Soil Samples, Mid Level Method, PCBSOML5.SOP. The modules used for this procedure were: XL 2020 Heat Systems Sonicator, SONICAT2.MOD, Chlorinated Pesticides and PCB Screening, 8500EC1.MOD, 5880 Gas Chromatographs, 5880EC2.MOD.

Results are reported out in dry weight.

The analytical support for this report was performed by AARP contractors.

Date Samples Received by the Laboratory: 10/30/97

Date Analysis Started: 11/10/97

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\98046SO.PCB

#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

#### QUALITY CONTROL:

- 1. One method blank was included in the analysis.
- 2. Each sample was spiked with the surrogate compounds, tetrachloroxylene and decachlorobiphenyl, at approximately 0.2 mg/Kg. The results for the surrogate recoveries are reported out with each sample.
- 3. One sample, 08435, was spiked as a matrix spike with Aroclor-1260 at approximately 1.0 mg/Kg. The recovery is listed below.

PCB Recovery (%) QC Range (%)
Aroclor 1260 100 46 - 153

OTHER COMPOUNDS QUANTITATED:

Conc. mg/Kg

Aroclor 1242

PCB

57

4. One sample, 08445, was analyzed in duplicate. The results are listed below.

PCB	08445	08445 DUP		RPD
Aroclor 1242	ND	ND	•	. 0

SAMPLES ANALYZED: 08428, 08429, 08430, 08431, 08432, 08433,08434, 08435, 08435MS, 08436, 08437, 08438, 08439, 08440, 08441, 08442, 08443, 08444, 08445, 08445 DUP

#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Holding time meet (Y/N): Yes
Extraction (Water - 7 days, Soil - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments:

The gas chromatographic trace of the samples most closely matched that of Aroclor 1242 but the samples had a severely "weathered" appearance. This is indicative of degradation of the Aroclor in the sample environment.

There was not enough sample supplied to the lab for a dry weight determination on sample 08428. The results for sample 08428 are reported out on a wet weight basis.

JARD, INC.

#### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

SAMPI	F	NO .	08428
SAMPL	ıL	NO.:	08428

DATE OF COLLECTION: 10/29/97	Matrix:	Soil
DATE OF EXTRACTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS: 11/18/97	Percent Moisture:	***
DRY WEIGHT EXTRACTED: ***	Extract Dilution	None
WET WEIGHT EXTRACTED: 3.21 g	Report Factor:	0.9

#### SAMPLE RESULTS:

CAS NO.	Compound		Conc. (mg/Kg) (		lifier Comment
12674-11-2	Aroclor-1016		ND	0.15	
11104-28-2	Aroclor-1221		ND	0.15	
11141-16-5	Aroclor-1232		ND.	0.15	
53469-21-9	Aroclor-1242		0.34	0.15	**
12672 <b>-</b> 29-6	Aroclor-1248		ND	0.15	
11097-69-1	Aroclor-1254		ND	0.15	
11096-82-5	Aroclor-1260		ND	0.15	
11100-14-4	Aroclor-1262		ND	0.15	•
37324-23-5	Aroclor-1268		ND	0.15	
***=results	based on wet weight	(see page 3	"additional	comments"	)

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	78

2,4,5,6-Tetrachloro-m-xylene

#### Notes:

RL = Reporting level

ND = None detected

~ = Approximate

< = Less than

> = Greater than

NA = Not applicable due to high sample dilutions or sample interferences

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.

P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

D = Detected but too low to quantitate.

C = The identification has been confirmed by GC/MS.

JARD, INC.

Observed

NA

NA

Recoveries (%)

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

WET WEIGHT EXTRACT	TED: 2.84 g TED: 4.49 g	Percent Dilution Report B		
SAMPLE RESULTS:				
CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	 ND	4.4	
11104-28-2	Aroclor-1221	ND	4.4	
11141-16-5	Aroclor-1232 ·	ND	4.4	
53469-21-9	Aroclor-1242	42	4.4	
12672-29-6	Aroclor-1248	ND	4.4	
11097-69-1	Aroclor-1254	ND	4.4	•
11096-82-5	Aroclor-1260	ND	4.4	
11100-14-4	Aroclor-1262	ND	4.4	
37324-23-5	Aroclor-1268	ND	4.4	

5

Sample Recovery for Surrogate Compound:

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-xylene

JARD, INC.

#### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

CAMDI	ъ.	NO	•	<b>ሰደ</b> ፈ3ሰ	

DIMIT DE MOII OUTSU			
DATE OF COLLECTION:	10/29/97	Matrix:	Concrete
DATE OF EXTRACTION:	11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS:	11/18/97	Percent Moisture	8
DRY WEIGHT EXTRACTED:	: 15.89 g	Dilution Factor:	5 <b>x</b>
WET WEIGHT EXTRACTED:	: 17.22 g	Report Factor:	0.9

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.15	
11104-28-2	Aroclor-1221	ND	0.15	
11141-16-5	Aroclor-1232	ND	0.15	
53469-21-9	Aroclor-1242	1.0	0.15	
12672-29-6	Aroclor-1248	ND .	0.15	
11097-69-1	Aroclor-1254	ND	0.15	•
11096-82-5	Aroclor-1260	ND	0.15	
11100-14-4	Aroclor-1262	ND	0.15	
37324-23-5	Aroclor-1268	ND	0.15	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	82
2,4,5,6-Tetrachloro-m-xylene	77

JARD, INC.

Recoveries (%)

82

74

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

	RL (mg/Kg) 	Qualifier or Comment
ND	0 14	
	0.14	
ND	0.14	
ND	0.14	
0.5	0.14	P
ND	0.14	
ND	0.14	•
ND	0.14	
ND	0.14	
	O.5 ND ND ND ND	0.5 0.14 ND 0.14 ND 0.14 ND 0.14 ND 0.14

SAMPLE NO.:

Surrogate Compound:

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-xylene

08431

JARD, INC.

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE	NO.:	08432
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DATE OF COLLECTION: 10/29/97	Matrix:	Soil
DATE OF EXTRACTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS: 11/18/97	Percent Moisture	10
DRY WEIGHT EXTRACTED: 3.29 g	Dilution Factor:	500x
WET WEIGHT EXTRACTED: 3.66 g	Report Factor:	450

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	 77	
11104-28-2	Aroclor-1221 .	ND	77	
11141-16-5	Aroclor-1232	ND	77	
53469-21-9	Aroclor-1242	1000	77	7
12672-29-6	Aroclor-1248	ND	77	
11097-69-1	Aroclor-1254	ND	77	•
11096-82-5	Aroclor-1260	ND	77	
11100-14-4	Aroclor-1262	ND	77	
37324-23-5	Aroclor-1268	ND	77	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	NA NA

JARD, INC.

## US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.:	08433			
DATE OF COLLE	CTION: 10/29/97	Matrix:		Soil
DATE OF EXTRA		Final Vo	lume:	5 mL
DATE OF ANALY		Percent		
DRY WEIGHT EX	• •	Dilution		
WET WEIGHT EX		Report F		4.5
SAMPLE RESULT	s:			
CAS	Compound	Conc.	RL	Qualifier
NO.	-	(mg/Kg)	(mg/Kg)	or Comment
12674-11-2	Aroclor-1016	ND	0.77	
11104-28-2	Aroclor-1221	ND	0.77	
11141-16-5	Aroclor-1232	ND	0.77	
53469-21-9	Aroclor-1242	11	0.77	P
12672-29-6	Aroclor-1248	ND	0.77	
11097-69-1	Aroclor-1254	ND	0.77	•
11096-82-5	Aroclor-1260	ND	0.77	
11100-14-4	Aroclor-1262	ND	0.77	
37324-23-5	Aroclor-1268	ND	0.77	
Sample Recove		Observed Recoveri		
De	cachlorobiphenyl	<b></b> 93		_
	4,5,6-Tetrachloro-m-xylene	83		~

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: 08434		
DATE OF COLLECTION: 10/29/97	Matrix:	Soil
DATE OF EXTRACTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS: 11/18/97	Percent Moisture	7
DRY WEIGHT EXTRACTED: 3.34 g	Dilution Factor:	5 <b>x</b>
WET WEIGHT EXTRACTED: 3.59 g	Report Factor:	4.4

CAS NO.	Compound	Conc. (mg/Kg)	RL	Qualifier or Comment
12674-11-2 11104-28-2 11141-16-5 <b>53469-21-9</b> 12672-29-6 11097-69-1	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254	ND ND ND <b>11</b> ND ND	0.75 0.75 0.75 <b>0.75</b> 0.75	ъ.
11096-82-5 11100-14-4 37324-23-5	Aroclor-1260 Aroclor-1262 Aroclor-1268	ND ND ND	0.75 0.75 0.75	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	91
2,4,5,6-Tetrachloro-m-xylene	77

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

Matrix:	Soil
Final Volume:	5 mL
Percent Moisture	12
Dilution Factor:	50x
Report Factor:	43
	Final Volume: Percent Moisture Dilution Factor:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	7.3	
11104-28-2	Aroclor-1221	ND	7.3	
11141-16-5	Aroclor-1232	ND	7.3	
53469-21-9	Aroclor-1242	67	7.3	P
12672-29-6	Aroclor-1248	ND	7.3	•
11097-69-1	Aroclor-1254	ND	7.3	
11096-82-5	Aroclor-1260	ND	7.3	
11100-14-4	Aroclor-1262	ND	7.3	
37324-23-5	Aroclor-1268	ND	7.3	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	91
2,4,5,6-Tetrachloro-m-xylene	82

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: DATE OF COLLEDATE OF EXTRADATE OF ANALY DRY WEIGHT EXWET WEIGHT EX	ECTION: 10/29/97 ACTION: 11/10/97 ISIS: 11/19/97 ATRACTED: 3.33 g ATRACTED: 3.66 g	Matrix: Final Volume: Percent Moistu Dilution Factor: Report Factor:	or: 20x
CAS NO.	Compound	Conc. RL (mg/Kg) (mg/Kg	~
12674-11-2 11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1 11096-82-5 11100-14-4 37324-23-5	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1262 Aroclor-1268	ND 3.	1 1 1 1
Sample Recove Surrogate Com		Observed Recoveries (%)	
	cachlorobiphenyl 4,5,6-Tetrachloro-m-xylene	NA NA	·

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE	NO .	08437
SAMPLE	NU	U043/

DATE OF COLLECTION: 10/29/97	Matrix:	Soil
DATE OF EXTRACTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS: 11/18/97	Percent Moisture	18
DRY WEIGHT EXTRACTED: 3.13 g	Dilution Factor:	None
WET WEIGHT EXTRACTED: 3.81 g	Report Factor:	0.9

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.15	
11104-28-2	Aroclor-1221	ND	0.15	
11141-16-5	Aroclor-1232	ND	0.15	
53469-21-9	Aroclor-1242	1.1	0.15	•
12672-29-6	Aroclor-1248	ND	0.15	
11097-69-1	Aroclor-1254	ND	0.15	•
11096-82-5	Aroclor-1260	ND	0.15	
11100-14-4	Aroclor-1262	ND	0.15	
37324-23-5	Aroclor-1268	ND	0.15	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	86
2,4,5,6-Tetrachloro-m-xylene	75

JARD, INC.

Recoveries (%)

87

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

DATE OF COLLECT DATE OF EXTRAC DATE OF ANALYS DRY WEIGHT EXT	TION: 10/29/97 TION: 11/10/97 IS: 11/19/97 TRACTED: 3.24 g	Matrix: Final Volume: Percent Moisture Dilution Factor: Report Factor:	
SAMPLE RESULTS	:		
CAS NO.	Compound	Conc. RL (mg/Kg) (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND 0.31	
11104-28-2 11141-16-5	Aroclor-1221 Aroclor-1232	ND 0.31 ND 0.31	
53469-21-9	Aroclor-1242	5.9 0.31	
12672-29-6	Aroclor-1248	ND 0.31	
11097-69-1	Aroclor-1254	ND 0.31	•
11096-82-5	Aroclor-1260	ND 0.31	
11100-14-4	Aroclor-1262	ND 0.31	
37324-23-5	Aroclor-1268	ND 0.31	
Sample Recover	y for	Observed	

Surrogate Compound:

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-xylene

JARD, INC.

#### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: DATE OF COLLEDATE OF EXTRADATE OF ANALY DRY WEIGHT EXWET WEIGHT EX	ACTION: 11/10/97 ISIS: 11/19/97 ITRACTED: 2.28 g ITRACTED: 3.71 g	Matrix: Final Volume: Percent Moistur Dilution Factor Report Factor:	
CAS	Compound	Conc. RL	Qualifier
NO.	· · · · · · · · · · · · · · · · · · ·	(mg/Kg) (mg/Kg)	or Comment
12674-11-2 11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1 11096-82-5 11100-14-4 37324-23-5	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1262 Aroclor-1268	ND 2.2 ND 2.2 ND 2.2 26 2.2 ND 2.2	P .
Sample Recove Surrogate Com		Observed Recoveries (%)	
	cachlorobiphenyl 4,5,6-Tetrachloro-m-xylene	82 88	

JARD, INC.

## US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.:	08440		
DATE OF COLLE	CTION: 10/29/97	Matrix:	Soil
DATE OF EXTRA	CTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALY	SIS: 11/19/97	Percent Moisture	10
DRY WEIGHT EX	TRACTED: 3.18 g	Dilution Factor:	20 <b>x</b>
WET WEIGHT EX	TRACTED: 3.54 g	Report Factor:	17
SAMPLE RESULT	<b>'S:</b>		
CAS	Compound	Conc. RL Qu	alifier
NO.		(mg/Kg) (mg/Kg) or	Comment

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	2.9	
11104-28-2	Aroclor-1221	ND	2.9	
11141-16-5 <b>53469-21-9</b>	Aroclor-1232 Aroclor-1242	ND <b>38</b>	2.9 2.9	P
12672-29-6	Aroclor-1248	ND	2.9	<b>-</b>
11097-69-1 11096-82-5	Aroclor-1254 Aroclor-1260	ND ND	2.9 2.9	•
11100-14-4	Aroclor-1262	ND	2.9	
37324-23-5	Aroclor-1268	ND	2.9	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	NA
2,4,5,6-Tetrachloro-m-xylene	NA

JARD, INC.

#### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE NO.: DATE OF COLL DATE OF EXTR DATE OF ANAL DRY WEIGHT E WET WEIGHT E SAMPLE RESUL	ECTION: 10/29/97 ACTION: 11/10/97 YSIS: 11/18/97 XTRACTED: 3.07 g XTRACTED: 3.41 g	Matrix: Final Volume Percent Mois Dilution Factor Report Factor	ture 10 tor: 50x
CAS NO.	Compound		L Qualifier Kg) or Comment
12674-11-2 11104-28-2 11141-16-5 <b>53469-21-9</b> 12672-29-6 11097-69-1 11096-82-5 11100-14-4 37324-23-5	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1262 Aroclor-1268	ND ND 110 ND ND ND ND ND ND ND	3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.2
Sample Recov Surrogate Co	mpound:	Observed Recoveries (	B)
	ecachlorobiphenyl ,4,5,6-Tetrachloro-m-xylene	NA NA	

JARD, INC.

## US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.:	08442			
DATE OF COL	LECTION: 10/29/97	Matrix:		Soil
DATE OF EXT		Final Vol	lume:	5 mL
DATE OF ANA		Percent 1		
DRY WEIGHT		Dilution		
WET WEIGHT		Report Fa		0.9
		Repert 1		0.5
SAMPLE RESU	LTS:			
CAS	Compound	Conc.	RL	Qualifier
NO.		(mg/Kg)	(mg/Kg)	or Comment
		·		
12674-11-2	Aroclor-1016	ND	0.15	
11104-28-2	Aroclor-1221	ND	0.15	
11141-16-5	Aroclor-1232	ND	0.15	
53469-21-9	Aroclor-1242	0.24	0.15	P
12672-29-6	Aroclor-1248	ND	0.15	
11097-69-1	Aroclor-1254	ND	0.15	•
11096-82-5	Aroclor-1260 ·	ND	0.15	
11100-14-4	Aroclor-1262	ND	0.15	
37324-23-5	Aroclor-1268	ND	0.15	
Sample Reco	_	Observed Recoverie	es (%)	
1	Decachlorobiphenyl	90		
	2,4,5,6-Tetrachloro-m-xylene	73		
•	2,4,5,6 lectaoniole m kylene	, 3		

JARD, INC.

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Polychlorinated Biphenyls

SAMPLE	NO.:	08443
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DATE OF COLLECTION: 10/29/97	Matrix:	Soil
DATE OF EXTRACTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS: 11/18/97	Percent Moisture	10
DRY WEIGHT EXTRACTED: 3.33 g	Dilution Factor:	20x
WET WEIGHT EXTRACTED: 3.70 g	Report Factor:	18

c. RL Qualifier Kg) (mg/Kg) or Comment
3.1
3.1
3.1
3.1 P
3.1
3.1
3.1
3.1
3.1

	s (%)
Decachlorobiphenyl NA 2,4,5,6-Tetrachloro-m-xylene NA	-

JARD, INC.

US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: 08444		
DATE OF COLLECTION: 10/29/97	Matrix:	Soil
DATE OF EXTRACTION: 11/10/97	Final Volume:	5 mL
DATE OF ANALYSIS: 11/18/97	Percent Moisture	7
DRY WEIGHT EXTRACTED: 3.20 g	Dilution Factor:	None
WET WEIGHT EYTDACTED. 3 45 a	Poport Factor:	0 0

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	0.15	
11104-28-2	Aroclor-1221	ND	0.15	
11141-16-5	Aroclor-1232	ND	0.15	
53469-21-9	Aroclor-1242	ND	0.15	
12672-29-6	Aroclor-1248	ND	0.15	
11097-69-1	Aroclor-1254	ND	0.15	•
11096-82-5	Aroclor-1260	ND	0.15	
11100-14-4	Aroclor-1262	ND	0.15	
37324-23-5	Aroclor-1268	ND	0.15	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	84 72
2,4,5,6 Techaniolo m xylene	

JARD, INC.

## US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

12674-11-2	Aroclor-1016	ND 0.17	
CAS NO.	Compound		alifier Comment
SAMPLE RESULTS	<b>5:</b>		
WET WEIGHT EX	TRACTED: 3.26 g	Report Factor:	1.0
DRY WEIGHT EXT	<b>-</b>	Dilution Factor:	None
DATE OF ANALYS	SIS: 11/18/97	Percent Moisture	7
DATE OF EXTRA	, ,	Final Volume:	5 mL
DATE OF COLLEC	CTION: 10/29/97	Matrix:	Soil
SAMPLE NO.:	08445		

NO.		(mg/Kg)	(mg/Kg)	or Comment
12674-11-2	Aroclor-1016	ND	0.17	
11104-28-2	Aroclor-1221	ND	0,17	
11141-16-5	Aroclor-1232	ND	0.17	
53469-21-9	Aroclor-1242	ND	0.17	
12672-29-6	Aroclor-1248	ND	0.17	
11097-69-1	Aroclor-1254	ND	0.17	•
11096-82-5	Aroclor-1260	ND	0.17	
11100-14-4	Aroclor-1262	ND	0.17	
37324-23 <b>-5</b>	Aroclor-1268	ND	0.17	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	90
2,4,5,6-Tetrachloro-m-xylene	83

JARD, INC.

## US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE NO.: BLANK DATE OF COLLECTION: N/A DATE OF EXTRACTION: 11/10/97 DATE OF ANALYSIS: 11/17/97 DRY WEIGHT EXTRACTED: 3.00 g WET WEIGHT EXTRACTED: 3.00 g SAMPLE RESULTS:		Matrix: Final Volume: Percent Moistur Dilution Factor Report Factor:		
	CAS NO.	Compound	Conc. RL (mg/Kg)	Qualifier or Comment
	12674-11-2 11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1 11096-82-5 11100-14-4 37324-23-5	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1262 Aroclor-1268	ND 0.17	
	Sample Reco Surrogate C		Observed Recoveries (%)	
		Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	81 72	



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

**ENVIRONMENTAL SERVICES DIVISION 60 WESTVIEW STREET** LEXINGTON, MASSACHUSETTS 02173-3185 Starton

DATE:

November 26, 1997

SUBJ:

Analysis of Polychlorinated Biphenyls (PCBs) in Wipe Samples - JARD, INC.

FROM:

Paul Carroll, Chemistry Section

THRU:

Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO:

Mary Ellen Stanton

WJA 11/28/97

PROJECT NUMBER:

98046

#### ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-In (EIA-ADMLOGN1.SOP, 7/97).

The wipe samples were extracted with 10 ml of hexane on a wrist shaker for 60 min. The extracts were screened on a 15 m, DB-5 capillary column using a Perkin Elmer 8500 gas chromatograph. Qualitative and quantitative analyses were done on a dual capillary system, Hewlett Packard 5890 gas chromatograph with two 30m, DB-1701 and DB-5, 0.25mm ID and a 0.25 micron film thickness. Results are reported out in total amount of PCBs observed per wipe.

Date(s) Samples Received by the Laboratory: 10/30/97

Date Analysis Started: 11/04/97

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\98046WI.PCB

#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

#### QUALITY CONTROL:

- 1. One method blank was included in the analysis.
- 2. Each sample was spiked with the surrogate compounds, tetrachloroxylene (TCX) and decachlorobiphenyl (DCB), at 10 ug/wipe. The results for the surrogate recoveries are reported out with each sample.
- 3. One laboratory fortified blank (LFB) was spiked with Aroclor-1260 at approximately 10 ug. The recovery is listed below.

PCB Recovery (%)
Aroclor-1260 88

SAMPLES ANALYZED: 05710, 08061, BLANK, LFB

### 60 Westview Street Lexington, NA 02173

Chemist who reviewed data: Peter Philbrook

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: Samples were extracted using a separatory funnel due to the large sample size.

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments: None

JARD, INC.

#### EVIRONMENTAL PROTECTION AGENCY LABORATORY

olychlorinated Biphenyls

08061 SAMPLE NO.:

Matrix: Final Volume: Extract Dilution: Report Factor: DATE OF COLLECTION: 10/29/97 Wipe DATE OF EXTRACTION: DATE OF ANALYSIS: 11/04/97 10 mL 11/08/97 5**0**x AMOUNT EXTRACTED: 1 wipe 50

#### SAMPLE RESULTS:

CAS NO.	Compound	Amount (ug/Wipe)	RL Q (ug/Wipe)o	ualifier or Comment
12674-11-2	Aroclor-1016	ND	5E+01	
11104-28-2	Aroclor-1221	ND	5E+01	
11141-16-5	Aroclor-1232	ND	5E+01	
53469-21-9	Aroclor-1242	490	5E+01	
12672-29-6	Aroclor-1248	ND	5E+01	
11097-69-1	Aroclor-1254	ND	5 <b>E+01</b>	
11096-82-5	Aroclor-1260	ND	5 <b>E+01</b>	
11100-14-4	Aroclor-1262	ND	5E+01	•
37324-23-5	Aroclor-1268	ND	5E+01	
Sample Recove Surrogate Com		Observed Recoveries	s (%)	

Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene

#### Notes:

RL = Reporting limit

(6E+00 = 6, 1E+01 = 10, 4E-01 = 0.4)

ND = None detected

= Approximate

< = Less than

> = Greater than

NA = Not applicable due to high sample dilutions or sample interferences

Estimated value exceeds the calibration range La Estimated value is below the calibration range

B Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.

P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

D = Detected but too low to quantitate.

C = The identification has been confirmed by GC/MS.

JARD, INC.

## THE PROTECTION AGENCY DESCRIPTION AGENCY DESCRIPTIO

SAMPLE NO.: 05710

DATE OF COLLECTION: Matrix: Wipe 10/29/97 DATE OF EXTRACTION: 11/04/97 Final Volume: 10 mL Extract Dilution: DATE OF ANALYSIS: 11/08/97 None AMOUNT EXTRACTED: 1 wipe Dilution Factor: 1

#### SAMPLE RESULTS:

CAS NO.	Compound	Amount (ug/Wipe)	RL (ug/Wipe)c	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	1E+00	
11104-28-2	Aroclor-1221	ND	1E+00	
11141-16-5	Aroclor-1232	ND	1E+00	
53469-21-9	Aroclor-1242	6.5	1E+00	
12672-29-6	Aroclor-1248	ND	1E+00	
11097-69-1	Aroclor-1254	ND	1E+00	•
11096-82-5	Aroclor-1260	ND	1E+00	
11100-14-4	Aroclor-1262	ND	1E+00	
37324-23-5	Aroclor-1268	ND	1E+00	

Sample Recovery for Observed Surrogate Compound: Recoveries (%)

Decachlorobiphenyl 90 2,4,5,6-Tetrachloro-m-xylene 79

5

JARD, INC.

# SECUTIONMENTAL PROTECTION AGENCY REGION I LABORATORY Polychlorinated Biphenyls

SAMPLE	NO.	. A	T.ANK

DATE OF COLLECTION:	Not applicable	Matrix:	Wipe
DATE OF EXTRACTION:	11/04/97	Final Volume:	10 mL
	11/07/97	Extract Dilution:	None
AMOUNT EXTRACTED: 1	wipe	Dilution Factor:	1

CAS NO.	Compound	Amount (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	1E+00	
11104-28-2	Aroclor-1221	ND	1E+00	
11141-16-5	Aroclor-1232	ND	1E+00	
53469-21-9	Aroclor-1242	ND	1E+00	
12672-29-6	Aroclor-1248	ND	1E+00	
11097-69-1	Aroclor-1254	ND	1E+00	•
11096-82-5	Aroclor-1260	ND	1E+00	
11100-14-4	Aroclor-1262	ND	1E+00	
37324-23-5	Aroclor-1268	ND	1E+00	

Sample	Rec	overy	for
Surroga	ite	Compou	ind:

opservea	
Recoveries	(ફ)

Decachlorobiphenyl	84
2,4,5,6-Tetrachloro-m-xylene	79





#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

May Eller

# REGION 1 ENVIRONMENTAL SERVICES DIVISION 60 WESTVIEW STREET LEXINGTON, MASSACHUSETTS 02173-3185

DATE: October 15, 1997

SUBJ: Analysis of Chlorinated Pesticides and Polychlorinated Biphenyls

(PCBs) in Soil Samples - JARD INC

FROM: Peter Philbrook, Chemistry Section

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO: Mary Ellen Stanton

PROJECT NUMBER: 97614

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-In (EIA-ADMLOGN1.SOP, 7/97).

EPA Region 1 Procedure: Chlorinated Pesticides and Polychlorinated Biphenyls (PCBs) in Soil Samples - Medium Level Method, PESSOML3.SOP. The modules used for this procedure were: XL 2020 Heat Systems Sonicator, SONICAT2.MOD, Chlorinated Pesticides and PCB Screening, 8500EC1.MOD, 5890 Gas Chromatographs, 5890EC2.MOD. Results are reported out in dry weight.

Date Samples Received by the Laboratory: 09/18/97

Date Analysis Started: 09/25/97

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\97614SO.PES

#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

#### QUALITY CONTROL:

- 1. One method blank was included in the analysis.
- Each sample was spiked with the surrogate compounds, tetrachloroxylene and decachlorobiphenyl, at approximately 0.8 mg/kg respectively. The results for the surrogate recoveries are reported out with each sample.
- 3. One sample, 06302, was spiked as a matrix spike with Aroclor-1260 at approximately 1.0 mg/Kg. The recovery is listed below.

PCB Recovery (%) QC Range (%)
Aroclor 1260 100 46-153

#### OTHER COMPOUNDS QUANTITATED:

PCB 06302 MS CONC. (ug/Kg)

Aroclor 1242 1,200

SAMPLES ANALYZED: BLANK, 06296, 06297, 06298, 06299, 06300, 06301, 06302, 06302MS, 06303, 06304, 06305, 06306, 06307, 06308

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#### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

Chemist who reviewed data: Paul Carroll

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: Surrogate recoveries could not be determined on the following samples 06296, 06303, 06306, 06307, 06308 dilutions were required to quantitate target compounds. The TCX recovery for sample 06301 was low 25%, the DCB was in QC range at 96%.

Additional comments: The gas chromatographic trace of samples 06298, 06307, and 06308 matched that of Aroclor 1242. The chromatographic trace of the remaining samples most closely matched that of Aroclor 1242 but had a severely "weathered" appearance which is indicative of degradation of the Aroclor in the sample environment.

#### JARD INC

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: BLANK

DATE OF COLLECTION: NOT APPLICABLE Matrix: Soil DATE OF EXTRACTION: 09/25/97 Final Volume: 5mL Percent Moisture: DATE OF ANALYSIS: 10/08/97 0 DRY WEIGHT EXTRACTED 3.021 Extract Dilution: NONE Report Factor: WET WEIGHT EXTRACTED 3.021 1.0

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	8E+00	
319-84-6	39337	alpha-BHC	ND	8E+00	
319-85-7	39338	beta-BHC	ND	8E+00	
319-86-8	34259	delta-BHC	ND	8E+00	
58-89-9	39340	gamma-BHC	ND	8E+00	•
5103-71-9		alpha-Chlordane	ND	8E+00	
5103-74-2		gamma-Chlordane	ND	8E+00	
57-74-9	39350	Chlordane (technical)	ND	8E+02	
72-54-8	39310	4,4'-DDD	ND	8E+00	
72-55-9	39320	4,4'-DDE	ND	8E+00	
50-29-3	39300	4,4'-DDT	ND	8E+00	
60-57-1	39380	Dieldrin	ND	8E+00	
959-98-8	34361	Endosulfan I	ND	8E+00	
33212-65-9	34356	Endosulfan II	ND	8E+00	
1031-078	34351	Endosulfan sulfate	ND	8E+00	
72-20-8	39390	Endrin	ND	8E+00	
7421-93-4	34366	Endrin aldehyde	ND	8E+00	
53494-70-5		Endrin ketone	ND	8E+00	
76-44-8	39410	Heptachlor	ND	8E+00	
1024-57-3	39420	Heptachlor epoxide	ND	8E+00	
72-43-5		Methoxychlor	ND	8E+00	
8001-35-2	39400	Toxaphene	ND	8E+02	
12674-11-2	34671	Aroclor-1016	ND	2E+02	
11104-28-2	39488	Aroclor-1221	ND	2E+02	
11141-16-5	39492	Aroclor-1232	ND	2E+02	
53469-21-9	39496	Aroclor-1242	ND	2E+02	
12672-29-6	.39500	Aroclor-1248	ND	2E+02	
11097-69-1	39504	Aroclor-1254	ND	2E+02	
11096-82-5	39508	Aroclor-1260	ND	2E+02	
11100-14-4	81649	Aroclor-1262	ND	2E+02	·
37324-23-5	81650	Aroclor-1268	ND	2E+02	

SAMPLE NO.: BLANK

ANALYTICAL RESULTS CONT.

Sample Recovery for Observed
Surrogate Compound: Recoveries (%)

Decachlorobiphenyl 108 2,4,5,6-Tetrachloro-m-xylene 88

#### Notes:

RL = Reporting limit

(6E+00 = 6, 1E+01 = 10, 4E-01 = 0.4)

ND = None detected

~ = Approximate

< = Less than</pre>

> = Greater than

NA = Not available due to dilution or interference

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

- B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.
- P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.

D = Detected but too low to quantitate.

C = The identification has been confirmed by GC/MS.

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Chlorinated Pesticides and Polychlorinated Biphenyls

SA	MPLE	NO.	:	0629	6

DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/08/97	Percent Moisture:	6
DRY WEIGHT EXTRACTED	3.36	Extract Dilution:	100X
WET WEIGHT EXTRACTED	3.58	Report Factor:	88

CAS	STORET	Compound	Cong	RL	Qualifier
NO.	NO.	Compound	Conc.	(ug/Kg)	
NO.	NO.		(ug/Kg)	(ug/kg)	or comment
309-00-2	39330	Aldrin	ND	7E+02	
319-84-6	39337	alpha-BHC	ND	7E+02	
319-85-7	39338	beta-BHC	ND	7E+02	
319-86-8	34259	delta-BHC	ND	7E+02	
58-89-9	39340	gamma-BHC	ND	7E+02	
5103-71-9		alpha-Chlordane	ND	7E+02	
5103-74-2		gamma-Chlordane	ND	7E+02	•
57-74-9	39350	Chlordane (technical)	ND	7E+04	
72-54-8	39310	4,4'-DDD	ND	7E+02	
72-55-9	39320	4,4'-DDE	ND	7E+02	
50-29-3	39300	4,4'-DDT	ND	7E+02	
60-57-1	39380	Dieldrin	ND	7E+02	
959-98-8	34361	Endosulfan I	ND	7E+02	
33212-65-9	34356	Endosulfan II	ND	7E+02	
1031-078	34351	Endosulfan sulfate	ND	7E+02	
72-20-8	39390	Endrin	ND	7E+02	
7421-93-4	34366	Endrin aldehyde	ND	7E+02	
53494-70-5		Endrin ketone	ND	7E+02	
76-44-8	39410	Heptachlor	ND	7E+02	
1024-57-3	39420	Heptachlor epoxide	ND	7E+02	
72-43-5		Methoxychlor	ND	7E+02	
8001-35-2	39400	Toxaphene	ND	7E+04	
12674-11-2	34671	Aroclor-1016	ND	2E+04	
11104-28-2	39488	Aroclor-1221	ND	2E+04	
11141-16-5	39492	Aroclor-1232	ND	2E+04	
53469-21-9	39496	Aroclor-1242	120,000	2E+04	
12672-29-6	39500	Aroclor-1248	ND	2E+04	
11097-69-1	39504	Aroclor-1254	ND	2E+04	
11096-82-5	39508	Aroclor-1260	ND	2E+04	
11100-14-4	81649	Aroclor-1262	ND	2E+04	
37324-23-5	81650	Aroclor-1268	ND	2E+04	

SAMPLE NO.: 06296 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	NA NA

#### JARD INC

# US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06297			
DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/08/97	Percent Moisture:	9
DRY WEIGHT EXTRACTED	2.98	Extract Dilution:	10X
WET WEIGHT EXTRACTED	3.29	Report Factor:	9.9

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	8E+01	
319-84-6	39337	alpha-BHC	ND	8E+01	
319-85-7	39338	beta-BHC	ND	8E+01	
319-86-8	34259	delta-BHC	ND	8E+01	
58-89-9	39340	gamma-BHC	ND	8E+01	
5103-71-9		alpha-Chlordane	ND	8E+01	
5103-74-2		gamma-Chlordane	ND	8E+01	•
57-74-9	39350	Chlordane (technical)	ND	8E+03	
72-54-8	39310	4,4'-DDD	ND	8E+01	
72-55-9	39320	4,4'-DDE	ND	8E+01	
50-29-3	39300	4,4'-DDT	ND	8E+01	
60-57-1	39380	Dieldrin	ND	8E+01	
959-98-8	34361	Endosulfan I	ND	8E+01	
33212-65-9	34356	Endosulfan II	ND	8E+01	
1031-078	34351	Endosulfan sulfate	ND	8E+01	
72-20-8	39390	Endrin	ND	8E+01	
7421-93-4	34366	Endrin aldehyde	ND	8E+01	
53 <b>494-</b> 70-5		Endrin ketone	ND	8E+01	
76-44 <b>-</b> 8	39410	Heptachlor	ND	8E+01	
1024-57-3	39420	Heptachlor epoxide	ND	8E+01	
72-43-5		Methoxychlor	ND	8E+01	
8001-35-2	39400	Toxaphene	ND	8E+03	
12674-11-2	34671	Aroclor-1016	ND	2E+03	
11104-28-2	39488	Aroclor-1221	ND	2E+03	
11141-16-5	39492	Aroclor-1232	ND	2E+03	
53469-21-9	39496	Aroclor-1242	17,000	2E+03	
12672-29-6	39500	Aroclor-1248	ND.	2E+03	
11097-69-1	39504	Aroclor-1254	ND	2E+03	
11096-82-5	39508	Aroclor-1260	ND	2E+03	
11100-14-4	81649	Aroclor-1262	ND	2E+03	
37324-23-5	81650	Aroclor-1268	ND	2E+03	

SAMPLE NO.: 06297 ANALYTICAL RESULTS CONT.	·	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)	
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	98 81	
	• •	

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE	NO.:	06298
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DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/8/97	Percent Moisture:	8
DRY WEIGHT EXTRACTED	3.46	Extract Dilution:	NONE
WET WEIGHT EXTRACTED	3.76	Report Factor:	0.8

CAS	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330 ·	Aldrin	ND	6E+00	
319-84-6	39337	alpha-BHC	ND	6E+00	
319-85-7	39338	beta-BHC	ND	6E+00	
319-86-8	34259	delta-BHC	ND	6E+00	
58-89-9	39340	gamma-BHC	ND	6E+00	
5103 <del>-</del> 71-9		alpha-Chlordane	ND	6E+00	
5103-74-2		gamma-Chlordane	ND	6E+00	•
57-74-9	39350	Chlordane (technical)	ND	6E+02	
72-54-8	39310	4,4'-DDD	ND	6E+00	
72-55-9	39320	4,4'-DDE	ND	6E+00	
50-29-3	39300	4,4'-DDT	ND	6E+00	
60-57-1	39380	Dieldrin	ND	6E+00	
959-98-8	34361	Endosulfan I	ND	6E+00	
33212-65-9	34356	Endosulfan II	ND	6E+00	
1031-078	34351	Endosulfan sulfate	ND	6E+00	
72-20-8	39390	Endrin	ND	6E+00	-
7421-93-4	34366	Endrin aldehyde	ND	6E+00	
53494-70-5		Endrin ketone	ND	6E+00	
76-44-8	39410	Heptachlor	ND ·	6E+00	
1024-57-3	39420	Heptachlor epoxide	ND	6E+00	
72-43-5		Methoxychlor	ND	6E+00	
8001-35-2	39400	Toxaphene	ND.	6E+02	
12674-11-2	34671	Aroclor-1016	ND	2E+02	
11104-28-2	39488	Aroclor-1221	ND	2E+02	
11141-16-5	39492	Aroclor-1232	ND	2E+02	
53469-21-9	39496	Aroclor-1242	2,300	2E+02	
12672-29-6	39500	Aroclor-1248	ND	2E+02	
11097-69-1	39504	Aroclor-1254	ND	2E+02	
11096-82-5	39508	Aroclor-1260	ND	2E+02	
11100-14-4	81649	Aroclor-1262	ND	2E+02	
37324-23-5	81650	Aroclor-1268	ND	2E+02	

SAMPLE NO.: 06298 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	91 69

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/08/97	Percent Moisture:	12
DRY WEIGHT EXTRACTED	3.00	Extract Dilution:	10X
WET WEIGHT EXTRACTED	3.40	Report Factor:	9.8

CAS	STORET	Compound	Conc.	RL	Qualifier
NO.	NO.	Compound	(ug/Kg)	(ug/Kg)	
309-00-2	39330	Aldrin	ND	8E+01	
319-84-6	39337	alpha-BHC	ND	8E+01	
319-85-7	39338	beta-BHC	ND	8E+01	
319-86-8	34259	delta-BHC	ND	8E+01	
58-89-9	39340	gamma-BHC	ND	8E+01	
5103-71-9		alpha-Chlordane	ND	8E+01	
5103-74-2		gamma-Chlordane	ND	8E+01	•
57-74-9	39350	Chlordane (technical)	ND	8E+03	
72-54-8	39310	4,4'-DDD	ND	8E+01	
72-55 <b>-</b> 9	39320	4,4'-DDE	ND	8E+01	
50-29-3	39300	4,4'-DDT	ND	8E+01	
60-57-1	39380	Dieldrin	ND	8E+01	
959-98-8	34361	Endosulfan I	ND	8E+01	
33212-65-9	34356	Endosulfan II	ND	8E+01	
1031-078	34351	Endosulfan sulfate	ND	8E+01	
72-20-8	39390	Endrin	ND	8E+01	
7421-93-4	34366	Endrin aldehyde	ND	8E+01	
53494-70-5		Endrin ketone	ND	8E+01	
76-44-8	39410	Heptachlor	ND	8E+01	
1024-57-3	39420	Heptachlor epoxide	ND	8E+01	
72-43-5		Methoxychlor	ND	8E+01	*
8001-35-2	39400	Toxaphene	ND	8E+03	
12674-11-2	34671	Aroclor-1016	ND	2E+03	
11104-28-2	39488	Aroclor-1221	ND	2E+03	
11141-16-5	39492	Aroclor-1232	ND	2E+03	
53469-21-9	39496	Aroclor-1242	7,000	2E+03	
12672-29-6	39500	Aroclor-1248	ND	2E+03	
11097-69-1	· 39504	Aroclor-1254	ND	2E+03	
11096-82-5	3 <b>9508</b>	Aroclor-1260	ND	2E+03	
11100-14-4	81649	Aroclor-1262	ND	2E+03	
37324-23-5	81650	Aroclor-1268	ND	2E+03	

SAMPLE NO.: 06299 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	94 · 78

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE	NO.:	06300
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DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/8/97	Percent Moisture:	6
DRY WEIGHT EXTRACTED	3.25	Extract Dilution:	10X
WET WEIGHT EXTRACTED	3.46	Report Factor:	9

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	7E+01	
319-84-6	39337	alpha-BHC	ND	7E+01	
319-85-7	39338	beta-BHC	ND	7E+01	
319-86-8	34259	delta-BHC	ND	7E+01	
58-89-9	39340	gamma-BHC	ND	7E+01	
5103-71-9		alpha-Chlordane	ND	7E+01	
5103-74-2		gamma-Chlordane	ND	7E+01	•
57-74-9	39350	Chlordane (technical)	ND	7E+03	
72-54-8	39310	4,4'-DDD	ND	7E+01	
72-55-9	39320	4,4'-DDE	ND	7E+01	
50-29-3	39300	4,4'-DDT	ND	7E+01	
60-57 <b>-</b> 1	39380	Dieldrin	ND	7E+01	
959-98-8	34361	Endosulfan I	ND	7E+01	
33212-65-9	34356	Endosulfan II	ND	7E+01	
1031-078	34351	Endosulfan sulfate	ND	7E+01	
72-20-8	39390	Endrin	ND	7E+01	
7421-93-4	34366	Endrin aldehyde	ND	7E+01	
53494-70-5		Endrin ketone	ND	7E+01	
76-44-8	39410	Heptachlor	ND	7E+01	
1024-57-3	39420	Heptachlor epoxide	ND	7E+01	
72-43-5		Methoxychlor	ND	7E+01	
8001-35-2	39400	Toxaphene	ND	7E+03	
12674-11-2	34671	Aroclor-1016	ND	2E+03	
11104-28-2	39488	Aroclor-1221	ND	2E+03	
11141-16-5	39492	Aroclor-1232	ND	2E+03	
53469-21-9	39496	Aroclor-1242	11,000	2E+03	
12672-29-6	39500	Aroclor-1248	ND	2E+03	
11097-69-1	39504	Aroclor-1254	ND	2E+03	
11096-82-5	3950 <b>8</b>	Aroclor-1260	ND	2E+03	
11100-14-4		Aroclor-1262	ND	2E+03	
37324-23-5	81650	Aroclor-1268	ND	2E+03	

SAMPLE NO.: 06300 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	94 84

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

	SAMPLE	NO.:	06301
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DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5 <b>mL</b>
DATE OF ANALYSIS:	10/08/97	Percent Moisture:	3
DRY WEIGHT EXTRACTED	3.21	Extract Dilution:	10X
WET WEIGHT EXTRACTED	3.32	Report Factor:	9

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	7E+01	
319-84-6	39337	alpha-BHC	ND	7E+01	
319-85-7	39338	beta-BHC	ND	7E+01	
319-86-8	34259	delta-BHC	ND	7E+01	
58-89- <del>9</del>	39340	gamma-BHC	ND	7E+01	
5103-71-9		alpha-Chlordane	ND	7E+01	
5103-74-2		gamma-Chlordane	ND	7E+01	•
57 <b>-</b> 74 <b>-9</b>	39350	Chlordane (technical)	ND	7E+03	
72-54-8	39310	4,4'-DDD	ND	7E+01	
72-55-9	39320	4,4'-DDE	ND	7E+01	
50 <b>-29-3</b>	39300	4,4'-DDT	ND	7E+01	
60-57-1	39380	Dieldrin	ND	7E+01	
959-98-8	34361	Endosulfan I	ND	7E+01	
33212-65-9	34356	Endosulfan II	ND	7E+01	
1031-078	34351	Endosulfan sulfate	ND	7E+01	
72-20-8	39390	Endrin	ND	7E+01	
7421-93-4	34366	Endrin aldehyde	ND	7E+01	
53494-70-5		Endrin ketone	ND	7E+01	
76-44-8	39410	Heptachlor	ND	7E+01	
1024-57-3	39420	Heptachlor epoxide	ND	7E+01	
72-43-5		Methoxychlor	ND	7E+01	
8001-35-2	39400	Toxaphene	ND	7E+03	
12674-11-2	34671	Aroclor-1016	ND	2E+03	
11104-28-2	39488	Aroclor-1221	ND	2E+03	
11141-16-5	39492	Aroclor-1232	ND	2E+03	
53469-21-9	39496	Aroclor-1242	5,200	2E+03	
12672-29-6	39500	Aroclor-1248	ND	2E+03	
11097-69-1	39504	Aroclor-1254	ND	2E+03	
11096-82-5	39508	Aroclor-1260	ND	2E+03	
11100-14-4	81649	Aroclor-1262	ND	2E+03	
37324-23-5	81650	Aroclor-1268	ND	2E+03	

SAMPLE NO.: 06301 ANALYTICAL RESULTS CONT.	·
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	96 25
2,4,5,0 Teerdemiere m Rijiene	

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06302 DATE OF COLLECTION: 09/17/97 Matrix: Soil DATE OF EXTRACTION: 09/25/97 Final Volume: 5mL DATE OF ANALYSIS: 10/08/97 Percent Moisture: 5 DRY WEIGHT EXTRACTED 3.30 Extract Dilution: NONE WET WEIGHT EXTRACTED 3.46 Report Factor: 0.9

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL Qualifier (ug/Kg) or Comment	
309-00-2	39330	Aldrin	ND	7E+00	_
319-84-6	39337	alpha-BHC	ND	7E+00	
319-85 <b>-</b> 7	39338	beta-BHC	ND	7E+00	
319-86-8	34259	delta-BHC	ND	7E+00	
58-89-9	39340	gamma-BHC	ND	7E+00	
5103-71-9		alpha-Chlordane	ND	7E+00	
5103-74-2		gamma-Chlordane	ND	7E+00	
57 <b>-74-9</b>	39350	Chlordane (technical)	ND	7E+02	
72-54-8	39310	4,4'-DDD	ND	7E+00	
72-55-9	39320	4,4'-DDE	ND	7E+00	
50-29-3	39300	4,4'-DDT	ND	7E+00	
60-57-1	39380	Dieldrin	ND	7E+00	
959-98-8	34361	Endosulfan I	ND	7E+00	
33212-65-9	34356	Endosulfan II	ND	7E+00	
1031-078	34351	Endosulfan sulfate	ND	7E+00	
72-20-8	39390	Endrin	ND	7E+00	
7421-93-4	34366	Endrin aldehyde	ND	7E+00	
53494-70-5		Endrin ketone	ND.	7E+00	
76-44-8	39410	Heptachlor	ND	7E+00	
1024-57-3	39420	Heptachlor epoxide	ND	7E+00 `	
72-43-5		Methoxychlor	ND	7E+00	
8001-35-2	39400	Toxaphene	ND	7E+Q2	
12674-11-2	34671	Aroclor-1016	ND	2E+02	
11104-28-2	39488	Aroclor-1221	ND	2E+02	
11141-16-5	39492	Aroclor-1232	ND	2E+02	
53469-21-9	39496	Aroclor-1242	950	2E+02	
12672-29-6	39500	Aroclor-1248	ND	2E+02	
11097-69-1	39504	Aroclor-1254	ND	2E+02	
11096-82-5	39508	Aroclor-1260	ND	2E+02	
11100-14-4	81649	Aroclor-1262	ND	2E+02	
37324-23-5	81650	Aroclor-1268	ND	2E+02	

SAMPLE NO.: 06302 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	94 67
•	

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06303

DATE OF COLLECTION: Soil 09/17/97 Matrix: DATE OF EXTRACTION: 09/25/97 Final Volume: 5mL DATE OF ANALYSIS: 10/08/97 Percent Moisture: 8 DRY WEIGHT EXTRACTED 3.06 Extract Dilution: 50X WET WEIGHT EXTRACTED 3.31 Report Factor: 48

CAS	STORET	Compound	Conc.	RL	Qualifier
NO.	NO.		(ug/Kg)	(ug/Kg)	or Comment
309-00-2	39330	Aldrin	ND	4E+02	
319-84-6	39337	alpha-BHC	ND	4E+02	
319-85 <b>-</b> 7	39338	beta-BHC	ND	4E+02	
319-86-8	34259	delta-BHC	ND	4E+02	
58-89-9	39340	gamma-BHČ	ND	4E+02	
5103-71-9		alpha-Chlordane	ND	4E+02	
5103-74-2		gamma-Chlordane	ND	4E+02	•
57-74-9	39350	Chlordane (technical)	ND	4E+04	
72-54-8	39310	4,4'-DDD	ND	4E+02	
72-55-9	39320	4,4'-DDE	ND	4E+02	
50-29-3	39300	4,4'-DDT	ND	4E+02	
60-57-1	39380	Dieldrin	ND	4E+02	
959-98-8	34361	Endosulfan I	ND	4E+02	
33212-65-9	34356	Endosulfan II	ND	4E+02	
1031-078	34351	Endosulfan sulfate	ND	4E+02	
72-20-8	39390	Endrin	ND	4E+02	•
7421-93-4	34366	Endrin aldehyde	ND	4E+02	
53494-70-5		Endrin ketone	ND	4E+02	
76-44-8	39410	Heptachlor	ND	4E+02	
1024-57-3	39420	Heptachlor epoxide	ND	4E+02	
72-43-5		Methoxychlor	ND	4E+02	
8001-35-2	39400	Toxaphene	ND	4E+04	
12674-11-2	34671	Aroclor-1016	ND	1E+04	
11104-28-2	39488	Aroclor-1221	ND	1E+04	
11141-16-5	39492	Aroclor-1232	ND	1E+04	
53469-21-9	39496	Aroclor-1242	46,000	1E+04	
12672-29-6	39500	Aroclor-1248	ND	1E+04	
11097-69-1	39504	Aroclor-1254	ND	1E+04	
11096-82-5	39508	Aroclor-1260	ND	1E+04	
11100-14-4	81649	Aroclor-1262	ND	1E+04	
37324-23-5	81650	Aroclor-1268	ND	1E+04	

SAMPLE NO.: ANALYTICAL	06303 RESULTS CONT.		
Sample Reco Surrogate C		Observed Recoveries	(%)
· .	Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	NA NA	

JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE	NO.:	06304
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DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/09/97	Percent Moisture:	9
DRY WEIGHT EXTRACTED	3.42	Extract Dilution:	10X
WET WEIGHT EXTRACTED	3.77	Report Factor:	8.6

SAMPLE RESU					
CAS	STORET	Compound	Conc.	RL	Qualifier
NO.	NO.		(ug/Kg)	(ug/Kg)	or Comment
309-00-2	39330	Aldrin	ИD	7E+01	
319-84-6	39337	alpha-BHC	ND	7E+01	
319-85-7	39338	beta-BHC	ND	7E+01	
319-86-8	34259	delta-BHC	ND	7E+01	
58-89-9	39340	gamma-BHC	ND	7E+01	
5103-71-9		alpha-Chlordane	ND	7E+01	
5103-74-2		gamma-Chlordane	ND	7E+01	•
57-74-9	39350	Chlordane (technical)	ND	7E+03	
72-54-8	39310	4,4'-DDD	ND	7E+01	
72-55-9	39320	4,4'-DDE	ND	7E+01	
50-29-3	39300	4,4'-DDT	ND	7E+01	
60-57-1	39380	Dieldrin	ND	7E+01	
959-98-8	34361	Endosulfan I	ND	7E+01	
33212-65-9	34356	Endosulfan II	ND	7E+01	
1031-078	34351	Endosulfan sulfate	ND	7E+01	
72-20-8	39390	Endrin	ND	7E+01	
7421-93-4	34366	Endrin aldehyde	ND	7E+01	
53494-70-5		Endrin ketone	ND	7E+01	
76-44-8	39410	Heptachlor	ND	7E+01	
1024-57-3	39420	Heptachlor epoxide	ND	7E+01	
72-43-5		Methoxychlor	ND	7E+01	v
8001-35-2	39400	Toxaphene	ND	7E+03	
12674-11-2	34671	Aroclor-1016	ND	2E+03	
11104-28-2	39488	Aroclor-1221	ND	2E+03	
11141-16-5	39492	Aroclor-1232	ND	2E+03	
53469-21-9	39496	Aroclor-1242	9,600	2E+03	
12672-29-6	39500	Aroclor-1248	ND	2E+03	
11097-69-1	39504	Aroclor-1254	ND	2E+03	
11096-82-5	39508	Aroclor-1260	ND	2E+03	
11100-14-4	81649	Aroclor-1262	ND	2E+03	
37324-23-5	81650	Aroclor-1268	ND	2E+03	

SAMPLE NO.: ANALYTICAL E	06304 RESULTS CONT.		
Sample Recov Surrogate Co		Observed Recoveries	(%)
	Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	97 88	

#### JARD INC

#### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06305			
DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/09/97	Percent Moisture:	10

DATE OF ANALYSIS: 10/09/97 Percent Moisture: 10
DRY WEIGHT EXTRACTED 3.16 Extract Dilution: 10X
WET WEIGHT EXTRACTED 3.49 Report Factor: 9.3

SAMPLE RESU CAS NO.	LTS: STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	7E+01	
319-84-6	39337	alpha-BHC	ND	7E+01	
319-85-7	39338	beta-BHC	ND	7E+01	
319-86-8	34259	delta-BHC	ND	7E+01	
58-89-9	39340	gamma-BHC	ND	7E+01	
5103-71-9		alpha-Chlordane	ND	7E+01	
5103-74-2		gamma-Chlordane	ND	7E+01	•
57-74-9	39350	Chlordane (technical)	ND	7E+03	
72-54-8	39310	4,4'-DDD	ND	7E+01	
72-55-9	39320	4,4'-DDE	ND	7E+01	
50-29-3	39300	4,4'-DDT	ND	7E+01	
60-57-1	39380	Dieldrin	ND	7E+01	
959-98-8	34361	Endosulfan I	ND	7E+01	
33212-65-9	34356	Endosulfan II	ND	7E+01	
1031-078	34351	Endosulfan sulfate	ND	7E+01	
72-20-8	39390	Endrin	ND	7E+01	
7421-93-4	34366	Endrin aldehyde	ND	7E+01	
53494-70-5		Endrin ketone	ND -	7E+01	
76-44-8	39410	Heptachlor	ND	7E+01	
1024-57-3	39420	Heptachlor epoxide	ND	7E+01	
72-43-5		Methoxychlor	ND	7E+01	
8001-35-2	39400	Toxaphene	ND	7E+03	
12674-11-2	34671	Aroclor-1016	ND	2E+03	
11104-28-2	39488	Aroclor-1221	ND	2E+03	
11141-16-5	39492	Aroclor-1232	ND	2E+03	
53469-21-9	39496	Aroclor-1242	9,300	2E+03	
12672-29-6	39500	Aroclor-1248	ND	2E+03	
11097-69-1	39504	Aroclor-1254	ND	2E+03	
11096-82-5	39508	Aroclor-1260	ND	2E+03	
11100-14-4	81649	Aroclor-1262	ND	2E+03	
37324-23-5	81650	Aroclor-1268	ND	2E+03	

SAMPLE NO.: ANALYTICAL	06305 RESULTS CONT.		
Sample Reco Surrogate C		Observed Recoveries (%)	· · · · · · · · · · · · · · · · · · ·
	Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	117 100	

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE	MO	•	06306	
SAMPLE	NU.	. :	autau	

DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/09/97	Percent Moisture:	33
DRY WEIGHT EXTRACTED	2.31	Extract Dilution:	50X
WET WEIGHT EXTRACTED	3.46	Report Factor:	64

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	5E+02	
319-84-6	39337	alpha-BHC	ND	5E+02	
319-85-7	39338	beta-BHC	ND	5E+02	
319-86-8	34259	delta-BHC	ND	5E+02	
58-89-9	39340	gamma-BHC	ND	5E+02	
5103-71-9		alpha-Chlordane	ND	5E+02	
5103-74-2		gamma-Chlordane	ND	5E+02	•
57-74-9	39350	Chlordane (technical)	ND	5E+04	
72-54-8	39310	4,4'-DDD	ND	5E+02	
72-55-9	39320	4,4'-DDE	ND	5E+02	
50-29-3	39300	4,4'-DDT	ND	5E+02	
60-57-1	39380	Dieldrin	ND	5E+02	
959+98-8	34361	Endosulfan I	ND	5E+02	
33212-65-9	34356	Endosulfan II	ND	5E+02	
1031-078	34351	Endosulfan sulfate	ND	5E+02	
72-20-8	39390	Endrin	ND	5E+02	
7421-93-4	34366	Endrin aldehyde	ND	5E+02	
53494-70-5		Endrin ketone	ND	5E+02	
76-44-8	39410	Heptachlor	ND	5E+02	
1024-57-3	39420	Heptachlor epoxide	ND	5E+02	
72-43-5		Methoxychlor	ND	5E+02	
8001-35-2	39400	Toxaphene	ND	5E+04	
12674-11-2	34671	Aroclor-1016	ND	1E+04	
11104-28-2	39488	Aroclor-1221	ND	1E+04	
11141-16-5	39492	Aroclor-1232	ND	1E+04	
53469-21-9	39496	Aroclor-1242	40,000	1E+04	
12672-29-6	39500	Aroclor-1248	ND	1E+04	
11097-69-1	39504	Aroclor-1254	ND	1E+04	
11096-82-5	39508	Aroclor-1260	ND	1E+04	
11100-14-4	81649	Aroclor-1262	ND	1E+04	
37324-23-5	81650	Aroclor-1268	ND	1E+04	

SAMPLE NO.: 06306
ANALYTICAL RESULTS CONT.
Sample Recovery for Observed

Surrogate Compound: Recoveries (%)

Decachlorobiphenyl NA 2,4,5,6-Tetrachloro-m-xylene NA

#### JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE	NO .	06307
SATIFUL	110.	00307

DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/09/97	Percent Moisture:	2
DRY WEIGHT EXTRACTED	3.06	Extract Dilution:	1000X
WET WEIGHT EXTRACTED	3.13	Report Factor:	961

CAS	STORET	Compound	Conc.	RL	Qualifier .
NO.	NO.		(ug/Kg)	(ug/Kg)	or Comment
309-00-2	39330	Aldrin	ND	8E+03	
319-84-6	39337	alpha-BHC	ND	8E+03	
319-85-7	39338	beta-BHC	ND	8E+03	•
319-86-8	34259	delta-BHC	ND	8E+03	
58-89-9	39340	gamma-BHC	ND	8E+03	
5103-71-9		alpha-Chlordane	ND	8E+03	
5103-74-2		gamma-Chlordane	ND	8E+03	•
57-74-9	39350	Chlordane (technical		8E+05	
72-54-8	39310	4,4'-DDD	ND	8E+03	
72-55-9	39320	4,4'-DDE	ND	8E+03	
50-29-3	39300	4,4'-DDT	ND	8E+03	
60-57-1	39380	Dieldrin	ND	8E+03	
959-98-8	34361	Endosulfan I	ND	8E+03	
33212-65-9	34356	Endosulfan II	ND	8E+03	
1031-078	34351	Endosulfan sulfate	ND	8E+03	
72-20-8	39390	Endrin	ND	8E+03	
7421-93-4	34366	Endrin aldehyde	ND	8E+03	
53494-70-5		Endrin ketone	ND	8E+03	
76-44-8	39410	Heptachlor	ND	8E+03	
1024-57-3	39420	Heptachlor epoxide	ND	8E+03	
72-43-5		Methoxychlor	ND	8E+03	•
8001-35-2	39400	Toxaphene	ND	8E+05	
12674-11-2	34671	Aroclor-1016	ND	2E+05	
11104-28-2	39488	Aroclor-1221	ND	2E+05	
11141-16-5	39492	Aroclor-1232	ND	2E+05	
53469-21-9	39496~	Aroclor-1242	3,800,000	2B+05	
12672-29-6	39500	Aroclor-1248	ND	2E+05	
11097-69-1	39504	Aroclor-1254	ND	2E+05	
11096-82-5	39508	Aroclor-1260	ND	2E+05	
11100-14-4	81649	Aroclor-1262	· ND	2E+05	
37324-23-5	81650	Aroclor-1268	ND	2E+05	

SAMPLE NO.: 06307 ANALYTICAL RESULTS CONT.			
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)		
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	NA NA		

#### JARD INC

#### US ENVERONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE	NO .	06308
SAMPLE	NU.:	บองบอ

DATE OF COLLECTION:	09/17/97	Matrix:	Soil
DATE OF EXTRACTION:	09/25/97	Final Volume:	5mL
DATE OF ANALYSIS:	10/09/97	Percent Moisture:	8
DRY WEIGHT EXTRACTED	3.05	Extract Dilution:	2000X
WET WEIGHT EXTRACTED	3.31	Report Factor:	1929

CAS NO.	STORET NO.	Compound	Conc. (ug/Kg)	RL (ug/Kg)	Qualifier or Comment
309-00-2	39330	Aldrin	ND	2E+04	
319-84-6	39337	alpha-BHC	ND	2E+04	
319-85-7	39338	beta-BHC	ND	2E+04	
319-86-8	34259	delta-BHC	ND	2E+04	
58-89-9	39340	gamma-BHC	ND	2E+04	
5103-71-9		alpha-Chlordane	ND	2E+04	
5103-74-2		gamma-Chlordane	ND	2E+04	•
57-74-9	39350	Chlordane (technical		2E+06	
72-54-8	39310	4,4'-DDD	ND	2E+04	
72-55-9	39320	4,4'-DDE	ND	2E+04	
50-29-3	39300	4,4'-DDT	ND	2E+04	
60-57-1	39380	Dieldrin	ND	2E+04	
959-98-8	34361	Endosulfan I	ND	2E+04	
33212-65-9	34356	Endosulfan II	ND	2E+04	
1031-078	34351	Endosulfan sulfate	ND	2E+04	
72-20 <del>-</del> 8	39390	Endrin	ND	2E+04	•
7421-93-4	34366	Endrin aldehyde	ND	2E+04	
53494-70-5		Endrin ketone	ND	2E+04	
76-44-8	39410	Heptachlor	ND	2E+04	,
1024-57-3	39420	Heptachlor epoxide	ND	2E+04	
72-43-5		Methoxychlor	ND	2E+04	
8001-35-2	39400	Toxaphene	ND .	2E+06	
12674-11-2	34671	Aroclor-1016	ND	4E+05	
11104-28-2	39488	Aroclor-1221	ND	4E+05	
11141-16-5	39492	Aroclor-1232	ND	4E+05	
53469-21-9	39496	Aroclor-1242	5,200,000	4B+05	
12672-29-6	39500	Aroclor-1248	ND	4E+05	
11097-69-1	39504	Aroclor-1254	ND	4E+05	
11096-82-5	39508	Aroclor-1260	ND	4E+05	
11100-14-4	81649	Aroclor-1262	ND	4E+05	
37324-23-5	81650	Aroclor-1268	ND	4E+05	

SAMPLE NO.: 06308

ANALYTICAL RESULTS CONT.

Sample Recovery for Observed

Surrogate Compound: Recoveries (%)

Decachlorobiphenyl NA 2,4,5,6-Tetrachloro-m-xylene NA



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

mare Eller Storton

# REGION 1 ENVIRONMENTAL SERVICES DIVISION 60 WESTVIEW STREET LEXINGTON, MASSACHUSETTS 02173-3185

DATE: October 9, 1997

SUBJ: Analysis of Pesticides and PCB's in Wipe Samples - JARD INC

FROM: Peter Philbrook, Chemistry Section

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO: Mary Ellen Stanton

PROJECT NUMBER: 97614

#### ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-In (EIA-ADMLOGN1.SOP, 7/97).

The wipe samples were extracted with 10 ml of hexane in a wrist shaker for 60 min. The extracts were then screened on a 15m, DB-5 capillary column using a Perkin Elmer 8500 gas chromatograph. Qualitative and quantitative analyses were done on a dual capillary system, Hewlett Packard 5890 gas chromatograph with two 30m, 25 micron film thickness, 0.25mm, capillary columns (DB-1701 and DB-5).

The analytical support for this report was performed by AARP contractors.

Date samples received by the laboratory: 09/18/97

Date Analysis Started: 09/18/97

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\97614WI.PCB

### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

### QUALITY CONTROL:

- 1. One method blank was included in the analysis.
- 2. Each sample was spiked with 10 ug of a surrogate compound, decachlorobiphenyl. The results for the surrogate recoveries are reported with each sample.
- 3. One laboratory fortified blank (LFB) wipe was spiked with the follwing compounds. The recovery is listed below.

Compound	Recovery (%)
Aldrin	76
gamma-BHC	68
4,4'-DDT	63
Dieldrin	64
Endrin	68
Heptachlor	. 70

SAMPLES ANALYZED: BLANK, LFB, 06309, 06310, 06311, 06312, 06313,

08436, 08496

### US ENVIRONMENTAL PROTECTION AGENCY 60 Westview Street Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments: None

JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: BLANK MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL DATE EXTRACTED: 09/18/97 DILUTION: NONE DATE ANALYZED: 10/02/97 REPORT FACTOR: 1.0 AMOUNT EXTRACTED:1 WIPE

CAS NO.	Compound	Conc. (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
309-00-2 319-84-6	Aldrin alpha-BHC	ND ND	0.05	
319-84-6	beta-BHC	ND	0.05	
319-86-8	delta-BHC	ND	0.05	
58-89-9	gamma-BHC	ND	0.05	
5103-71-9	alpha-Chlordane	ND	0.05	
5103-74-2	gamma-Chlordane	ND	0.05	•
57-74-9	Chlordane (technical)	ND	1.00	
72-54-8	4,4'-DDD	ND	0.05	
72-55-9	4,4'-DDE	ND	0.05	
50-29-3	4,4'-DDT	ND	0.05	
60-57-1	Dieldrin	ND	0.05	
959-98-8	Endosulfan I	ND	0.05	
33212-65-9	Endosulfan II	ND	0.05	
1031-07-8	Endosulfan Sulfate	ND	0.05	
72-20-8	Endrin	ND .	0.05	
7421-93-4	Endrin Aldehyde	ND	0.05	
53494-70-5	Endrin Ketone	ND	0.05	
76-44-8	Heptachlor	ND	0.05	
1024-57-3	Heptachlor Epoxide	ND	0.05	
72-43-5	Methoxychlor	ND	0.05	
8001-35-2	Toxaphene	ND	1.00	
12674-11-2	Aroclor-1016	ND	1.00	
11104-28-2	Aroclor-1221	ND	1.00	
11141-16-5	Aroclor-1232	ND	1.00	
53469-21-9	Aroclor-1242	ND	1.00	
12672-29-6	Aroclor-1248	ND	1.00	
	Aroclor-1254	ND	1.00	
	Aroclor-1260	ND	1.00	
	Aroclor-1262	ND	1.00	
37324-23-5	Aroclor-1268	ND	1.00	

SAMPLE NO.: BLANK

ANALYTICAL RESULTS CONT.

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Sample Recovery for

Observed

Surrogate Compound:

Recoveries (%)

Decachlorobiphenyl

77

2,4,5,6-Tetrachloro-m-xylene

73

#### Notes:

RL = Reporting limit

ND = None detected at the RL

~ = Approximate value

< = Less than

> = Greater than

NA = Not available due to dilution or interference

E = Estimated value exceeds the calibration range

L = Estimated value is below the calibration range

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.

P = The confirmation exceeded 35% difference and is less than 100%. The lower value is reported.

C = Confirmation by GC/MS

D = Detected but too low to quantitate.

JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06309 MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL DATE EXTRACTED: 09/18/97 DILUTION: 10X DATE ANALYZED: 10/02/97 REPORT FACTOR: 10.0 AMOUNT EXTRACTED:1 WIPE

CAS NO.	Compound	Conc.	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	0.50	
319-84-6	alpha-BHC	ND	0.50	
319-85-7	beta-BHC	ND	0.50	
319-86-8	delta-BHC	ND	0.50	
58-89-9	gamma-BHC	ND	0.50	•
5103-71-9	alpha-Chlordane	ND	0.50	
5103-74-2	gamma-Chlordane	ND	0.50	
57-74-9	Chlordane (technical)	ND	10.00	
72-54-8	4,4'-DDD	ND	0.50	
72-55-9	4,4'-DDE	ND	0.50	
50-29-3	4,4'-DDT	ND	0.50	
60-57-1	Dieldrin	ND	0.50	
959-98-8	Endosulfan I	ND	0.50	
33212-65-9	Endosulfan II	ND	0.50	
1031-07-8	Endosulfan Sulfate	ND	0.50	
72-20-8	Endrin	ND.	0.50	
7421-93-4	Endrin Aldehyde	ND	0.50	
53 <b>494-</b> 70-5	Endrin Ketone	ND	0.50	
76-44-8	Heptachlor	ND	0.50	
1024-57-3	Heptachlor Epoxide	ND	0.50	
72-43-5	Methoxychlor	ND	0.50	
8001-35-2	Toxaphene	ND	10.00	
12674-11-2	Aroclor-1016	ND	10.00	
11104-28-2	Aroclor-1221	ND	10.00	
11141-16-5	Aroclor-1232	ND	10.00	
53469-21-9	Aroclor-1242	110	10.00	
12672-29-6	Aroclor-1248	ND	10.00	
11097-69-1	Aroclor-1254	ND	10.00	
11096-82-5	Aroclor-1260	ND	10.00	
11100-14-4	Aroclor-1262	ND	10.00	
37324-23-5	Aroclor-1268	ND	10.00	

SAMPLE NO.: 06309 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	94 92

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US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06310 MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL DATE EXTRACTED: 09/18/97 DILUTION: 5x DATE ANALYZED: 10/02/97 REPORT FACTOR: 5.0 AMOUNT EXTRACTED:1 WIPE

CAS NO.	Compound	Conc. (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	0.25	
319-84-6	alpha-BHC	ND	0.25	
3 <b>19-85-</b> 7	beta-BHC	ND	0.25	
319-86-8	delta-BHC	ND	0.25	•
58-89-9	gamma-BHC	ND	0.25	
5103-71-9	alpha-Chlordane	ND	0.25	
5103-74-2	gamma-Chlordane	ND	0.25	
57-74-9	Chlordane (technical)	ND	5.00	
72-54-8	4,4'-DDD	ND	0.25	
72-55 <b>-</b> 9	4,4'-DDE	ND	0.25	
50-29-3	4,4'-DDT	ND	0.25	
60-57-1	Dieldrin	ND	0.25	
959-98-8	Endosulfan I	ND	0.25	
33212-65-9	Endosulfan II	ND	0.25	
1031-07-8	Endosulfan Sulfate	ND	0.25	
72-20-8	Endrin	ND	0.25	
7421-93-4	Endrin Aldehyde	ND	0.25	
53494-70-5	Endrin Ketone	ND	0.25	•
76-44-8	Heptachlor	ND	0.25	
1024-57-3	Heptachlor Epoxide	ND	0.25	
72-43-5	Methoxychlor	ND	0.25	
8001-35-2	Toxaphene	ND	5.00	
12674-11-2	Aroclor-1016	ND	5.00	
11104-28-2	Aroclor-1221	ND	5.00	
11141-16-5	Aroclor-1232	ND	5.00	
53469-21-9	Aroclor-1242	52	5.00	
12672-29-6	Aroclor-1248	ND	5.00	
	Aroclor-1254	ND	5.00	•
	Aroclor-1260	ND	5.00	
11100-14-4	Aroclor-1262	ND	5.00	
37324-23-5	Aroclor-1268	ND	5.00	

SAMPLE NO.: 06310	
ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	90
2,4,5,6-Tetrachloro-m-xylene	93

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### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06311 MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL DATE EXTRACTED: 09/18/97 DILUTION: 200X DATE ANALYZED: 10/02/97 REPORT FACTOR: 200 AMOUNT EXTRACTED: 1 WIPE

CAS NO.	Compound	Conc.	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	10	
319-84-6	alpha-BHC	ND	10	
319 <b>-</b> 85-7	beta-BHC	ND	10	·
319 <b>-</b> 86-8	delta-BHC	ND	10	
58-89-9	gamma-BHC	ND	10	
5 <b>1</b> 03 <b>-</b> 71-9	alpha-Chlordane	ND	10	•
5103-74-2	gamma-Chlordane	ND	10	
57-74-9	Chlordane (technical)	ND	200	
72-54-8	4,4'-DDD	ND	10	
72-55-9	4,4'-DDE	ND	10	
50-29-3	4,4'-DDT	ND	10	
60-57-1	Dieldrin	ND	10	
959-98-8	Endosulfan I	ND	10	
33212-65-9	Endosulfan II	ND	10	
1031-07-8	Endosulfan Sulfate	ND	10	-
72-20-8	Endrin	ND	10	
7421-93-4	Endrin Aldehyde	ND	10	
53494-70-5	Endrin Ketone	ND	10	•
76-44-8	Heptachlor	ND	10	
1024-57-3	Heptachlor Epoxide	ND	10	
72-43-5	Methoxychlor	ND	10	
8001-35-2	Toxaphene	ND	200	
12674-11-2	Aroclor-1016	ND	200	
11104-28-2	Aroclor-1221	ND	200	
11141-16-5	Aroclor-1232	ND	200	
53469-21-9	Aroclor-1242	1600	200	
12672-29-6	Aroclor-1248	ND	200	
11097-69-1	Aroclor-1254	ND	200	
11096-82-5	Aroclor-1260	ND	200	
11100-14-4	Aroclor-1262	ND	200	·
37324-23-5	Aroclor-1268	ND	200	

SAMPLE NO.: 06311 ANALYTICAL RESULTS CONT.	•
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-	NA m-xylene NA

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### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06312 MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL 09/18/97 DILUTION: DATE EXTRACTED: 50X DATE ANALYZED: 10/02/97 REPORT FACTOR: 50 AMOUNT EXTRACTED: 1 WIPE

CAS NO.	Compound	Conc. (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	2.5	
319-84-6	alpha-BHC	ND	2.5	•
3 <b>19-85-</b> 7	beta-BHC	ND	2.5	
319-86-8	delta-BHC	ND	2.5	
5 <b>8-89-9</b>	gamma-BHC	ND	2.5	•
5103-71-9	alpha-Chlordane	ND	2.5	
5103-74-2	gamma-Chlordane	ND	2.5	
57 <b>-74-9</b>	Chlordane (technical)	ND	50	
72-54-8	4,4'-DDD	ND	2.5	
72-55-9	4,4'-DDE	ND	2.5	
50-29-3	4,4'-DDT	ND	2.5	
60-57-1	Dieldrin	ND	2.5	
959 <b>-98-</b> 8	Endosulfan I	ND	2.5	
33212-65-9	Endosulfan II	NĎ	2.5	
1031-07-8	Endosulfan Sulfate	ND	2.5	
72-20-8	Endrin	ND	2.5	
7421-93-4	Endrin Aldehyde	ND	2.5	
53494-70-5	Endrin Ketone	ND	2.5	
76-44 <b>-</b> 8	Heptachlor	ND	2.5	
1024-57-3	Heptachlor Epoxide	ND	2.5	
72-43-5	Methoxychlor	ND	2.5	
8001-35-2	Toxaphen <b>e</b>	ND	50	
12674-11-2	Aroclor-1016	ND	50	
11104-28-2	Aroclor-1221	ND	50	
11141-16-5	Aroclor-1232	ND	50	
53469-21-9	'Aroclor-1242	260	50	
12672-29-6	Aroclor-1248	ND	50	
	Aroclor-1254	ND	50	
11096-82-5		ND	50	
11100-14-4	Aroclor-1262	ND.	50	
37324-23-5	Aroclor-1268	ND	5 <b>0</b>	

SAMPLE NO.: 06312 ANALYTICAL RESULTS CONT.	
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	NA NA

JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY

REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 06313 MATRIX: Wipe 09/17/97 DATE SAMPLED: FINAL VOLUME: 10mL 09/18/97 DILUTION: DATE EXTRACTED: NONE DATE ANALYZED: 10/02/97 REPORT FACTOR: 1.0 AMOUNT EXTRACTED: 1 WIPE

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CAS NO.	Compound	Conc. (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	0.05	
319-84-6	alpha-BHC	ND	0.05	
319-85-7	beta-BHC	ND	0.05	
319-86-8	delta-BHC	ND	0.05	
5 <b>8-89-9</b>	gamma-BHC	ND	0.05	
5103-71-9	alpha-Chlordane	ND	0.05	•
5103-74-2	gamma-Chlordane	ND	0.05	
57-74-9	Chlordane (technical)	ND	1.00	
72-54-8	4,4'-DDD	ND	0.05	
72-55-9	4,4'-DDE	ND	0.05	
50-29-3	4,4'-DDT	ND	0.05	
60-57-1	Dieldrin	ND	0.05	
959-98-8	Endosulfan I	ND	0.05	
33212-65-9	Endosulfan II	ND	0.05	
1031-07-8	Endosulfan Sulfate	ND .	0.05	
72-20-8	Endrin	ND	0.05	
7421-93-4	Endrin Aldehyde	ND	0.05	
53494-70-5	Endrin Ketone	ND	0.05	
76-44-8	Heptachlor	ND	0.05	
1024-57-3	Heptachlor Epoxide	ND	0.05	
72-43-5	Methoxychlor	ND	0.05	
8001-35-2	Toxaphene	ND	1.00	
12674-11-2	Aroclor-1016	ND	1.00	
11104-28-2	Aroclor-1221	ND	1.00	
11141-16-5	Aroclor-1232	ND	1.00	
53469-21-9	Aroclor-1242	14	1.00	
12672-29-6	Aroclor-1248	ND	1.00	
11097-69-1	Aroclor-1254	ND	1.00	
11096-82-5	Aroclor-1260	ND	1.00	,
11100-14-4	Aroclor-1262	ND	1.00	
37324-23-5	Aroclor-1268	ND	1.00	

SAMPLE NO.: 06313 ANALYTICAL RESULTS CONT.		
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)	
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	78 70	

JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 08436 MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL DATE EXTRACTED: 09/18/97 DILUTION: NONE DATE ANALYZED: 10/02/97 REPORT FACTOR: 1.0

#### **SAMPLE RESULTS:**

AMOUNT EXTRACTED: 1 WIPE

CAS NO.	Compound	Conc. (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	0.05	
319-84-6	alpha-BHC	ND	0.05	
319-85-7	beta-BHC	ND	0.05	
319-86-8	delta-BHC	ND	0.05	
58-89-9	gamma-BHC	ND	0.05	
5103-71-9	alpha-Chlordane	ND	0.05	•
5103-74-2	gamma-Chlordane	ND	0.05	
57-74-9	Chlordane (technical)	ND	1.00	
72-54-8	4,4'-DDD	ND	0.05	
72-55-9	4,4'-DDE	ND	0.05	
50-29 <b>-</b> 3	4,4'-DDT	ND	0.05	
60-57-1	Dieldrin	ND	0.05	
959-98-8	Endosulfan I	ND	0.05	
33212-65-9	Endosulfan II	ND	0.05	
1031-07-8	Endosulfan Sulfate	ND	0.05	
72-20-8	Endrin	ND	0.05	
7421-93-4	Endrin Aldehyde	ND	0.05	
53494-70-5	Endrin Ketone	NĎ	0.05	
76-44-8	Heptachlor	ND	0.05	
1024-57-3	Heptachlor Epoxide	ND	0.05	
72-43-5	Methoxychlor	ND	0.05	
8001-35-2	Toxaphene	ND	1.00	
12674-11-2	Aroclor-1016	ND	1.00	
11104-28-2	Aroclor-1221	ND	1.00	
11141-16-5	Aroclor-1232	ND	1.00	
53469-21-9	Aroclor-1242	ND	1.00	•
12672-29-6	Aroclor-1248	ND	1.00	
11097-69-1	Aroclor-1254	ND	1.00	
11096-82-5	Aroclor-1260	ND	1.00	
11100-14-4	Aroclor-1262	ND	1.00	
37324-23-5	Aroclor-1268	ND	1.00	

SAMPLE NO.: 08436 ANALYTICAL RESULTS CONT.		
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)	
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	78 72	

JARD INC

### US ENVIRONMENTAL PROTECTION AGENCY REGION I LABORATORY

Chlorinated Pesticides and Polychlorinated Biphenyls

SAMPLE NO.: 08496 MATRIX: Wipe DATE SAMPLED: 09/17/97 FINAL VOLUME: 10mL DILUTION: 200X DATE EXTRACTED: 09/18/97 DATE ANALYZED: REPORT FACTOR: 200 10/02/97 AMOUNT EXTRACTED: 1 WIPE

CAS NO.	Compound	Conc. (ug/Wipe)	RL (ug/Wipe)	Qualifier or Comment
309-00-2	Aldrin	ND	10	
319-84-6	alpha-BHC	ND	10	
3 <b>19-85-7</b>	beta-BHC	ND	10	
3 <b>19-86-8</b>	delta-BHC	ND	10	
58-89-9	gamma-BHC	ND	10	•
5103 <b>-</b> 71 <b>-9</b>	alpha-Chlordane	ND	10	
5103-74-2	gamma-Chlordane	ND	10	
57 <b>-</b> 74 <b>-9</b>	Chlordane (technical)	ND	200	
72-54-8	4,4'-DDD	ND	10	
72-55-9	4,4'-DDE	ND	10	
50-29-3	4,4'-DDT	ND	10	
60-57-1	Dieldrin	ND	10	
959-98-8	Endosulfan I	ND	10	
33212-65-9	Endosulfan II	ND	10	
1031-07-8	Endosulfan Sulfate	ND	10	
72-20-8	Endrin	ND	10	
7421-93-4	Endrin Aldehyde	ND	10	
53494-70-5	Endrin Ketone	ND	10	
76-44-8	Heptachlor	ND	10	•
1024-57-3	Heptachlor Epoxide	ND	10	
72-43-5	Methoxychlor	ND ·	10	
8001-35-2	Toxaphene	ND	200	
12674-11-2	Aroclor-1016	ND	200	
11104-28-2	Aroclor-1221	ND	200	
11141-16-5	Aroclor-1232	ND	200	
53469-21-9	Aroclor-1242	1300	200	
12672-29-6	Aroclor-1248	ND	200	
11097-69-1	Aroclor-1254	ND.	200	
11096-82-5	Aroclor-1260	ND	200	
11100-14-4	Aroclor-1262	ND	200	
37324-23-5	Aroclor-1268	ND	200	

SAMPLE NO.: 08496 ANALYTICAL RESULTS CONT.	·
Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl 2,4,5,6-Tetrachloro-m-xylene	NA NA